Maintenance
Storm Water
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A Success Story in District 6 – Shaver Lake Maintenance Facility

This bulletin recounts a storm water management success story about the Shaver Lake Maintenance Facility in District 6. Not only do the efforts of Shaver Lake management and staff deserve recognition, their creative solutions for achieving water pollution control compliance at their facility should be shared for everyone's benefit.

About the Facility

Shaver Lake is a Highway Maintenance Facility located in the central Sierra Nevada mountains of Fresno County. The facility, located above 1,500 meters (5,000 feet) elevation, receives abundant precipitation from winter snows and summer thunderstorms.

The Storm Water Challenge

As is true for all maintenance facilities, Shaver Lake is required to comply with the Caltrans *Statewide Storm Water Management Plan* (SWMP) self-auditing requirements. In consultation with District Maintenance management, the Caltrans Headquarters Maintenance Division developed inspection procedures and criteria for auditing water pollution control compliance at facilities statewide. Facility inspections began in July 2002, with inspections conducted by the Maintenance Facility Inspection Team.

Shaver Lake was scheduled for inspection in August 2002.

A Learning Experience

For many of the inspection criteria, the Inspection Team found Shaver Lake to be in compliance. However, several major deficiencies were identified that facility personnel did not recognize as potential threats to water pollution control.

First, asphalt stockpiles were located at the center of the facility. Vehicles driving over the stockpiles broke the material down and tracked it across the facility so that it was near impossible to preventing contact and transporting materials off the facility with storm water runoff.

Before: Tracked asphalt and other materials could be easily transported off the facility in storm water.

Second, the unpaved areas of the facility were not stabilized to prevent erosion. Wind and storm water can transport eroded soils to storm drains, rivers, and lakes resulting in increased sediment loads that reduce natural habitat quality.

Before: Stockpile material and eroded sediment from unstabilized slopes can affect habitat quality, particularly in pristine areas such as the Sierra Nevada mountains.

Third, excessive sediment had accumulated along an unstabilized slope. The asphalt berm constructed to contain the sediment was damaged resulting in a high potential for discharge of sediment, if unrepaired.

A Will and a Way

With the dedicated assistance of John Haen (District 6 Maintenance Storm Water Coordinator), Rose Chalukian (North Region Storm Water), Mike Walker (Facility Supervisor), and the Shaver Lake staff immediately undertook the challenge of bringing the facility into full compliance.

Practices and controls that were implemented at the facility included:

- A more focused self-inspection and cleaning program that addressed problem areas.
- Regular sweeping and/or vacuuming of facility grounds to remove accumulated pollutants per Section 2.29 – Sweeping and Vacuuming.
- Implementation of sediment and erosion controls, such as straw mats, silt fence, and fiber rolls on slopes to stabilize soil and control sediment, per Section 2.7 – Sediment Control.
- Asphalt paving in dirt areas with high potential for erosion.
- Increase in communication and education of facility staff on proper Best Management Practices (BMPs).

After: A clean facility with minimal potential for pollutant discharges.

After: Stabilized slopes are an effective tool for preventing sediment from discharging off site.

Shaver Lake is only one of the increasing number of Caltrans facilities that demonstrate that maintenance and water pollution prevention goals can be achieved together. Congratulations to the Shaver Lake staff and all Caltrans personnel who are working to make this a commonplace reality.

Caltrans Maintenance MSW Storm Water

Additional information is available in the Caltrans Maintenance Manual, Chapter C-6, or from your District Maintenance Storm Water Coordinator. Questions or comments may be directed to Greg Lockshaw, HQ Storm Water Coordinator, gregory_lockshaw@dot.ca.gov